

P- loop

```

Ae-dNK MAAAI GPERLG---VAGKKPFTVE EGNIGSGKTTFLNHFEKFKDRVCLLTPVEKWRDC
Ag-dNK -MPPIASEKLG---ASGKKPFTVE EGNIGSGKTTFLNHFKKFND-ICLLTPVEKWRNC
Dm-dNK MAEAASCARKGTKYAECTQPFTVL EGNIGSGKTTFLNHFEKFKNDICLLTPVEKWRNV
Bm-dNK ----MS-----ANNVKPFTVE EGNIGSGKTTFLHFRQFED-ITLLTPVEMWRDL
                                     *  *  *  *

```

```

Ae-dNK GGVNLLDLMYKEPHRWAMPFOYVTLTMLNMHTYQTDKSVKLMERSLFSARYCFVENMLA
Ag-dNK GGVNLLDLMYKESHRWAMPFOYVTLTMLDMHTCQTDKSVKLMERSLFSARNCFVESMLA
Dm-dNK NGVNLLDLMYKDPKKWAMPFOSYVTLTMLQSHTAPTNNKKIKIMERSLFSARYCFVENMRR
Bm-dNK KGCNLLDLMYKDEKWAMTFOSYVSLTMLDMHRRPAPTVPKLMERSLFSARYCFVEHIMR
          *  *  *  *  *  *  *  *  *  *  *  *

```

```

Ae-dNK SSSLHQGMYNILQEWYEFIHANIHQADLIVYLRTSPEIVYERMKKRARSEESCVPKLYL
Ag-dNK SSSLHQGMYNVLQEWYDFICCNIHQADLIVYLOTSPENVYERMKKRARSEESCVPLEYL
Dm-dNK NGSLEQGMYNILEEWYKFIIESIHQADLITLRLTSPEVAYERIRQARSEESCVPKLYL
Bm-dNK NNTLHPAQFAVLDEWFERIQHNIPIDADLIVYLITSPSTVYQRIKKRARSEESCVPISYL
                                     *  *  *

```

```

Ae-dNK QELHELHENWLIHGTFPRV-APVLVLADADLDLHNISSEYKRSETSILK---PILIDNTNQ
Ag-dNK KELHELHENWLIHGASPRP-APVLVLNADLDLNTIGA EYERSETSILK---PILIENTNQ
Dm-dNK QELHELHEDWLIHQRRFQS-CKVLVLADADLDLENIGIEYQRSESSIFD---AIS-SNOOP
Bm-dNK EELHRLHEDWLINRIHAECAPAPVLVLADADLDLSGITDEYKRSEHQILRKAVNVVMSPNK

```

nuclear import signal

```

Ae-dNK H----PIIASPSKRSRTEF--
Ag-dNK H----AILTSPAKRAKTDF--
Dm-dNK S----PVLVSPSKRQRVAR--
Bm-dNK HSPKKPISTPIKITPHMRIL

```

Fig. 1